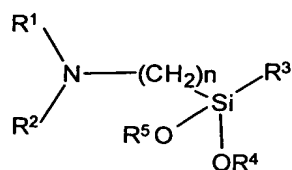


Abstract

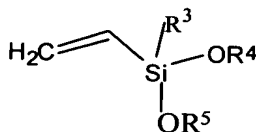
Stable non-photosensitive polyimide precursor compositions with an adhesion promoter in a non-NMP solvent for use in forming high temperature resistant relief images and a process for making said images. The non-photosensitive polyimide precursor compositions comprise

- a) one or more polyamic acids soluble in *gamma*-butyrolactone (GBL) and aqueous tetramethyl ammonium hydroxide, and with the proviso that the polyamic acid is also resistant to a solvent used in a photosensitive composition with which the polyimide precursor composition is to be used;
- b) a solvent comprising *gamma*-butyrolactone; and
- c) one or more adhesion promoters selected from structures described by

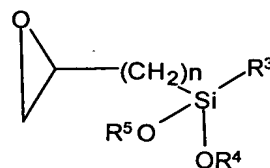
Formulae I-VI



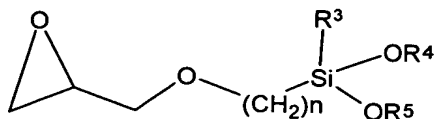
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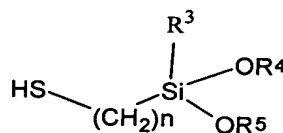
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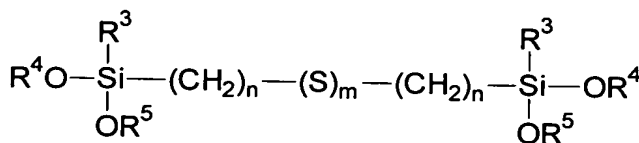
III



IV



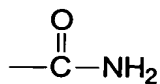
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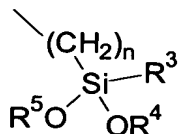
VI

339.7755USU

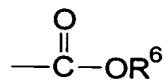
wherein R^1 is H, $C_1 - C_{10}$ linear, cyclic or branched alkyl, phenyl or halophenyl or alkyl substituted phenyl, R^2 is $C_1 - C_{10}$ linear, cyclic or branched alkyl, phenyl, halophenyl or alkyl substituted phenyl or one of the following moieties VII, VIII, or IX



VII



VIII



IX

- 5 where R^3 is $C_1 - C_4$ linear or branched alkyl or $C_1 - C_4$ linear or branched alkoxy group, R^4 , R^5 and R^6 are independently $C_1 - C_4$ linear or branched alkyl group, m is an integer from 1 to about 4, and n is an integer from 1 to about 5.